

## GENES INTEGRATING SIGNAL TRANSDUCTION PATHWAYS

### Abstract of the Disclosure

The present invention describes the identification, isolation, sequencing and characterization of two human CalDAG-GEF, and two human cAMP-GEF genes, which are associated with the Ras pathway. Also identified are CalDAG-GEF gene homologues in mice and cAMP-GEF gene homologues in rats. Nucleic acids and proteins comprising or derived from the CalDAG-GEFs and/or cAMP-GEFs are useful in screening and diagnosing certain Ras-associated cancers, in identifying and developing therapeutics for treatment of certain Ras-associated cancers, and in producing cell lines and transgenic animals useful as models of Ras-associated cancers.

479JAC5473/111.878507-1